



REPLY TO
ATTENTION OF.

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
NORTHBROOK AREA OFFICE
666 DUNDEE ROAD, SUITE 1605
NORTHBROOK, ILLINOIS 60062



March 10, 1999

Northbrook Area Office

Subject: NL Industries/Taracorp
Stack Emissions Lead Removal
Granite City, Illinois

Brad Bradley, RPM (SR-6J)
USEPA Region V
77 W. Jackson Blvd.
Chicago, Illinois 60604-3590

Dear Brad:

We have completed our review of the Remedial Action Workplan for the NL Industries/Taracorp battery pile cap project in Granite City, Illinois prepared by Entact. Enclosed are our review comments.

Should you have any questions please call Mr. Ed Abat or the undersigned at 847/ 205-4540.

Sincerely,

James D. MacMorran
Area Engineer
Northbrook Area Office

EPA Region 5 Records Ctr.



260578

**REVIEW COMMENTS
REMEDIAL ACTION WORKPLAN
FOR THE
BATTERY PILE CAP
NL INDUSTRIES/TARACORP, GRANITE CITY, ILLINOIS**

1. Section 2, parag. 2.3, page 7: - It is highly recommended that Section 01300 - Submittal Procedures may not be totally eliminated for the simple reason that product specifications and samples of materials to be used in the work need to be submitted for review and evaluation in order to ensure that the quality of materials as specified is attained. Manufacturers' specifications and samples of geo-synthetic clay liner, geo-membrane, geo-composite drainage layer, geo-grid soil reinforcement, security fence materials, metal sheet piles, concrete reinforcing steel and concrete mix proportions are some of the items that need submittal. In conjunction with this section, the submittal register is a tool used for scheduling and control purposes. Items must be submitted at least 20 calendar days in advance of the scheduled use in order to facilitate timely review and evaluation. Other work items recommended for submittal include those that had the USACE specifications partly or totally modified and will be noted as this review progresses. The intent of the submittal process is to have the items approved in advance prior to their use.
2. Section 2, Table 2-1, parag. 6, Line 4: - Change "bills of loading" to "bills of lading".
3. Section 2, Table 2-1, parag. 9: - Verify if the Office of the State Fire Marshall is required to conduct site inspection and issue certification at the closure of the 20,000 gallon UST removal.
4. Section 3, parag. 3.1, subparag 4, page 8: - Change subparagraph to read, "USACE Construction Representative, Charles Settles, Jr. U.S. Army Corps of Engineers, Chicago District." The last part of the last sentence under this subparagraph should be changed to read ".....is adhered to and will coordinate proposed design modifications with the USEPA and USACE Chicago District."
5. Section 3, parag. 3.1, page 10: - On-Site Field Managers. It is highly recommended that the On-Site Field Manager not be a working field manager as is the case with the residential stack emissions cleanup. His time should be dedicated solely to field supervision and management to enable him to oversee the job from an overall viewpoint. He should be able to anticipate potential problems and prevent or resolve them immediately. A case in point is the potential problem of dust control especially during dry and windy days. Someone has to anticipate such occurrences and give directions to mitigate the problem. Our early experience at the residential cleanup was, it was difficult to immediately locate a field supervisor when a problem arose because he was at another site operating equipment instead of supervising the work.
6. Section 3, Remedial Action Management Team, Page 11: - As written it is our understanding that the Corporate Health and Safety Director conducts inspections

onsite periodically and no qualified health and safety officer is onsite on a daily basis. It is highly recommended that a specially trained and qualified health and safety officer be onsite daily in order to evaluate the site safety conditions during intrusive activities that may necessitate work shutdown, as stated under Section 4, paragraph 4.10 Dust Control Procedures, middle of page 19. A qualified health and safety officer is also needed to evaluate the changing hazardous conditions that may require the modification of PPEs worn by the workers especially during extremely hot or cold weather days. These are just some of the many instances where the daily presence of a qualified health and safety officer is required.

7. Section 4, parag. 4.3 Security, page 15, 2nd subparagraph: It is highly recommended that warning signs posted on the perimeter fence shall read as follows:
“HAZARDOUS WORK AREA” and “DO NOT ENTER UNLESS AUTHORIZED”.
8. Section 4, parag. 4.3 Security, page 14: - Under this paragraph it is highly recommended to include a list of emergency points of contact including their telephone numbers and or radio frequencies so that dependable emergency responses can be executed 24 hours a day. A highly visible copy will be posted at the security office.
9. Section 4, parag. 4.3 Security, page 14: - Under this paragraph it is highly recommended to include a Standard Operating Procedure, describing security response to foreseeable emergencies like accidents, fire, tornadoes, etc. A copy will be posted at the security office.
10. Section 4, parag. 4.3 Security, page 14: - It is recommended that a Site Security person to double as a property or supply custodian/utility man be included in the Project Management Team.
11. Section 4, parag. 4.5 Support Facilities, page 16: - It is highly recommended that a separate field office be provided for USEPA and USACE personnel use in order to maintain privacy during discussion of issues in the course of the project. This setup will also foster a more professional relationship between Corps and Contractor field personnel and still maintain effective interaction and communication. If a trailer is provided it should be at least 10 ft x 20 ft. Also provide and maintain drinking water facilities, adequate lighting, local and long distance telephone service with 3 lines, heating and air-conditioning, a portable chemical toilet, a computer, a printer/copier/fax machine, a two way radio, a microwave oven and a small refrigerator similar to that furnished for the stack emissions field office. The field office shall be furnished with one legal size filing cabinet with four drawers, one drafting table with stool, one plan rack, one desk and three chairs. Used furniture in good condition may be acceptable. Entrance doors shall be equipped with substantial lock. The contractor shall provide and maintain the heating and air-conditioning facilities, electricity, telephone, water, and weekly janitorial services at no cost to the Government. The entire facility including furniture, shall remain the property of the contractor and shall be removed from the site after completion of the work. Keys to

all ingress/egress gates to the site shall be provided to the Government at no additional cost.

12. Section 6, parag. 6.2 Demolition, page 42: - Add the following statement at the end of the last paragraph, per amendment No. 003 dated March 21, 1997 of the USACE Specifications. "The contractor shall take a representative sample of the pavement material for TCLP-Pb analysis for disposal determination."
13. Section 6, parag. 6.3 UST Removal, page 42: - If found to be not empty, explain what will be done with the content, i.e. treatment and disposal of sludge. Will the tank be removed from the site intact or will it be cut up and decontaminated prior to disposal?
14. Section 6, parag. 6.4.5 Asphalt Removal, page 44: - If test results are below 500 ppm, and determined to be cost effective can the reclaimed asphalt be recycled for use in asphalt paving of alleys?
15. Section 6, parag. 6.4.6 Concrete Removal, page 45: - Concrete rubble, if approved to be used as backfill at the industrial property excavations or at the top 12 inch layer of the random fill, shall be crushed to not greater than 3 inch particle size to meet the requirement for suitable backfill material. This will also prevent the possibility of puncturing the geo-synthetic clay liner of the pile cap.
16. Section 6, parag. 6.5 Backfilling, page 45; parag 6.5.5, 3rd subparagraph, page 51: - Section 2210, paragraph 3.3 and Section 2211, paragraph 3.5 of the USACE Specifications require the use of clean off-site random fill for the final 12 inch layer of the pile cap. However, the use of the residential-generated fill stockpiled onsite for this purpose, will be a determination to be made by USEPA and IEPA.
17. Section 6, parag. 6.6.1 Geo-synthetic Clay Liner, page 53: - It is highly recommended that product catalog, test results or certification from the manufacturer be submitted for review to determine if the proposed modification is an acceptable equal of the originally specified material. This is in conjunction with comment No. 1 above.
18. Section 6, parag. 6.6.2 Geo-membrane, page 53: - Same comment as No. 17 above.
19. Section 6, parag. 6.6.3 Geo-composite Drainage Layer, page 54: - Same comment as No.17 above.
20. Section 6, parag. 6.6.4 Geo-grid Soil Reinforcement, page 54: - Same comment as No. 17 above.
21. Section 6, parag. 6.6.5 Select Fill and Topsoil for Landfill Cover, page 54: - The use of residential generated fill for select fill and topsoil for the pile cap will be a determination to be made by USEPA and IEPA.

22. Section 6, parag. 6.6.6 Turf Installation and Soil Erosion and Sedimentation Control, page 54: - It is highly recommended that technical information regarding the proposed modified seed mixture be submitted for review and evaluation to determine if the proposed modification is an acceptable equal of the originally specified seeding. This is in conjunction with comment No. 1 above.
23. Section 6, parag. 6.9 Retaining Wall Construction, page 55: - It is highly recommended that any retaining wall design modifications be submitted with enough lead time for timely review and evaluation by the government. This is in conjunction with comment No. 1 above.
24. Section 6, parag. 6.10 Chain Link Fence Installation, page 56: - It is highly recommended that any proposed fencing modification be submitted with enough lead time for timely review and evaluation by the government. This is in conjunction with comment No. 1 above.
25. Section 6, parag. 6.11 Sub-drainage System For Landfill Cover Systems, page 56: - Same comment as No. 24 above for the proposed change from 8 inch PVC to 8 inch corrugated HDPE pipe.
26. Section 6, parag. 6.12 Storm Drainage system, page 56: - Same comment as No. 23 above for the proposed design modification of the storm retention basin.
27. Section 6, parag. 6.14 Asphalt and Concrete Drive Installation, page 57:- Same comment as No. 24 above for the proposed change of base course thickness from 14 inches to 6 inches for asphalt pavement
28. Section 7, page 58: - General comment: All documents and manifests for all wastes removed from the site for off-site disposal shall be reviewed with the Government on-site representative prior to shipment.
29. Appendix D, parag. 2.3, Project Superintendent, page 4: - The designated Project Superintendent for the Pile Cap Project, the Stack Emissions Removal and the Health and Safety Officer is one and the same individual. With all due respect for him, it is our utmost concern that the duties and responsibilities of anyone of these positions may be jeopardized during the peak of the construction season. He will be too pre-occupied with the technical and management aspects of both projects that he may not efficiently fulfill his responsibilities as Health and Safety Officer. In conjunction with comment No. 6 above we firmly believe that a specially trained Health and Safety Officer be assigned and be present at the jobsite on a daily basis. Furthermore he may not have the training as a Health and Safety Officer.
30. Appendix D, Table 4.4, page 23: - Include the following under Excavation Hazard: Source - Trench excavation; Control Measures - trench sideslopes to conform with soil angle of repose or shoring.

31. Appendix D, Attachment U, page 180: - Attachment U, Layout of Work Zones is missing. Include a schematic diagram of the PPE dropoff stations in proper sequence of disrobing, properly located at the exit from the exclusion zone to the CRC zone.
32. Appendix D, General Comment: - Include a copy of the MSDS sheets in the Health and Safety Plan.
33. Appendix D, General Comment: - Post a highly visible copy of the street map showing the emergency route for hospital evacuation at the security and safety office.
34. General Comment: - This Workplan stipulates that the Project Manager, Project Superintendent, and QA/QC Officer will function as such simultaneously for both the Taracorp Pile Cap Project and the Stack Emissions Removal Project. Based on the construction schedule, it is evident that possibly there will be 4 to 5 months of overlap of heavy construction activities between the two projects before the Stack Emissions Project is completed. The Corps is concerned that the tasks and activities to produce the expected quality of work may not be properly implemented due to understaffing. Therefore the Corps highly recommends that the two projects should be managed by two separate management teams.

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